UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,657	06/26/2006	Hong Wing Tse	PA040004	8180

24498 7590 02/05/2008

Joseph J. Laks
THOMSON LICENSING LLC
2 Independence Way, Patent Operations
PO BOX 5312
PRINCETON, NJ 08543

EXAMINER	
TRAN, VINCENT HUY	

ART UNIT	PAPER NUMBER
2115	

MAIL DATE	DELIVERY MODE
02/05/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/584,657	TSE, HONG WING	
	Examiner	Art Unit	
	Vincent T. Tran	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 May 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/26/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the communication filed on 6/26/06

2. Claims 1-8 are pending for examination.

3. The text of those sections of Title 35, U.S. code not included in this action can be found in a prior Office action.

Priority

4. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on 6/26/2006 were considered by the examiner.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hopkins et al. U.S. Patent No. 5,345,347 in view of Ikeda U.S. Patent No. 5,715,218.

9. As per claim 1, Hopkins teaches a method for driving an optical disk drive in a power saving mode having the steps of:

receiving an indication to start power save mode [600]

turning off a servo driver of the optical disk drive [616 - col. 6 lines 50-54; col. 9 lines 50-53; col. 14 lines 14-21]

after that, turning of DATA SEPARATOR [read component]

awaiting an indication to stop power saving mode

turning on said DATA SEPARATOR [344]

after that, turning on said servo driver [346 fig. 4; 316 – col. 12 lines 4-24].

Although Hopkins specifically teaches, in the low power mode when disk access is not required, the system simply interrupts the power supply to the DATA SEPARATOR [428 fig. 4]. However, Hopkins does not explicitly teach turning off a photodetector which is a read component in an optical disk drive.

Ikeda teaches another method relates to power saving in an optical disk drive. Specifically, Ikeda teaches the optical disk unit is automatically set to a power save mode when no access is make to the optical disk where the focus servo of the focus system is turned OFF and the laser [photodetector] diode is turned OFF [col. 27-46].

At the time of the invention was make, it would have been obvious to one of ordinary skill in the art to have modified the system of Hopkins with the turning off the photodetector taught by Ikeda in order to further reduce power consumption.

10. As per claim 2, Hopkins teaches turning off the servo driver of the optical disk drive includes disabling the driving signal from the servo driver through a gate signal to the servo driver [col. 6 lines 50-54].

11. As per claim 3, the system of Hopkins modified by Ikeda inherently teaches the photodetector are performed by turning off/on the power supply of the photodetector.

12. As per claim 4, Ikeda teaches the photodetector are performed by turning off/on a light source [laser diode] generating light to be detected by the photodetector.

13. As per claim 5, Hopkins teaches an optical disk drive [fig. 1] with a pickup [19] and a servo controller [42], wherein the pickup is equipped with a photodetector [23] and a servo actuator [52] and wherein the servo controller generates a control signal in response to photodetector signals [see signal line between component in fig. 1], said control signal being submitted to the servo actuator via a servo driver [41→52], wherein the optical disk drive is further equipped with a power save controller [fig. 2] for sequentially turning off the servo driver followed by turning off the photodetector, and for turning on the photodetector and the servo driver in the reverse order [see discussion in claim 1].

14. As per claim 6-8, see discussion in claim 2-4.

15. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinada U.S. Patent No. 5,822,288.

16. As per claim 1, Shinada teaches a method for driving an optical disk drive in a power saving mode having the steps of:

receiving an indication to start power save mode [Buffer RAM FULL]

turning off a servo driver of the optical disk drive [SERVO CONTROL 9a]

after that, turning of a photodetector [col. 9 lines 9-17]

awaiting an indication to stop power saving mode

turning on said photodetector

after that, turning on said servo driver [col. 9 lines 1-9].

17. As per claim 2, Shinada teaches turning off the servo driver of the optical disk drive includes disabling the driving signal from the servo driver through a gate signal to the servo driver [SSG signal fig. 8].

18. As per claim 3, Shinada teaches the photodetector are performed by turning off/on the power supply of the photodetector [fig. 11].

19. As per claim 4, Shinada teaches the photodetector [4] are performed by turning off/on a light source generating light to be detected by the photodetector [fig. 4].

20. As per claim 5, Shinada teaches an optical disk drive [fig. 2] with a pickup [3,7] and a servo controller [9], wherein the pickup is equipped with a photodetector [3a] and a servo actuator [2] and wherein the servo controller generates a control signal in response to photodetector signals [inherent], said control signal being submitted to the servo actuator via a servo driver [9→2], wherein the optical disk drive is further equipped with a power save controller [11] for sequentially turning off the servo driver followed by turning off the photodetector, and for turning on the photodetector and the servo driver in the reverse order [see discussion in claim 1].

21. As per claim 6-8, see discussion in claim 2-4.

Conclusion

Examiner's note:

Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially

teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Prior Art not relied upon:

Please refer to the references listed in attached PTO-892, which, are not relied upon for claim rejection since these references are relevant to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent T. Tran whose telephone number is (571) 272-7210. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas c. Lee can be reached on (57 1)272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Vincent Tran

CHUN CAO
PRIMARY EXAMINER